USDA
Section II-E
Technical Guide
Area 2, Texas

SANDY LOAM
RANGE SITE DESCRIPTION
PE 28-33

LAND RESOURCE AREA HP&RR
Location _____
Date _____
Approved By _____

1. PHYSIOGRAPHIC FEATURES: This site consist of broad, nearly level plains, gently sloping divides, and long, narrow sideslopes along streams. Slopes are plane to convex and range from 0 to 8 percent, but are mainly 1 to 5 percent. Elevation ranges from 2,500 ft. in the S.E. portion of the area to 4,700 ft. in the N.W. portion.

2. SOILS:

a. These are deep, well drained, moderately and moderately rapidly permeable, loamy soils. Typically, the soils of this site, have a light colored noncalcareous fine sandy loam surface layer over a sandy clay loam subsoil.

The natural fertility of these soils is moderate. They take in water readily and the water holding capacity is high. Runoff is slow to medium. If unprotected by vegetative cover, the hazard of water erosion is moderate to severe on the more sloping areas. The susceptibility to soil blowing is moderate to severe. The root zone of these soils is deep and easily penetrated by plant roots.

b. Major soils associated with this site are:

Amarillo fsl, Dallam fsl, Miles fsl, Dalhart fsl

c. Specific site location:

APPROVAL SIGNATURE	DATE
Grant J. Conlon Area Conservationist	2/23/79
Jerry Davis Field Specialist-Range	3/2/79
Gary Valentine Field Specialist-Biology	3/16/79

3. CLIMATE:

See field office climate description.

4. CLIMAX VEGETATION:

a. The climax plant community is made up of a good balance between tall to mid grasses and supports an abundance of grass. This vegetation has a tendancy to decrease slowly even under relatively heavy grazing.

This site differs from mixedland slopes in that there are less tall grasses (only minor amounts in favored locations) more blue grama and less sideoats grama. Also there is less yucca.

RELATIVE PERCENTAGE OF TOTAL PLANT COMMUNITY (Air-dry weight)

Grasses 90%		Woody plants 5%		Forbs 5%	
blue grama	25	sand sagebrush	5	catclaw sensitivebriar	)
sideoats grama	15	yucca	T	plains zenia	)
buffalograss	10	catclaw acacia	T	wild alfalfa	)
little bluestem	)	vine ephedra	T	daleas	)5
sand bluestem	)15	skunkbush sumac	T	prairie clovers	)
Indiangrass	)			gaura sp.	)
Canada wildrye	)			penstemons	)
Texas bluegrass	)			primrose sp.	)
neddle-and-thread	)10			black sampson	)
western wheatgrass	)			Indian rushpea	)
hairy grama	)			lyreleaf greeneyes	)
sand dropseed	)10			Louisiana sagewort	)
perennial threeawn	)			Engelmanndaisy	
silver bluestem	5				
tumble windmillgrass	T				

b. As retrogression occurs plant such as sand bluestem, Indiangrass and sideoats grama will decrease while bluegrama and buffalograss will increase. Other grasses such as perennial threeawn, hairy grama, silver bluestem and sand dropseed will also increase. With continued retrogression plants such as mesquite, prickly pear and cholla will invade the site. Often mesquite will dominate the site when in poor range condition. In this condition it will often resemble the clay loam range site. Forage production is reduced considerably when in competition with heavy stands of mesquite.

c. Approximate total annual production in excellent condition ranges from 1600 to 2400 pounds of air-dry vegetation per acre, depending upon rainfall growing conditions.

5. WILDLIFE ADAPTED TO THE SITE: This site is inhabited by deer, antelope, quail, and dove. Predator animals such as coyotes also occupy the site. Other small animals and birds feed, nest and raise their young on the site. Prairie dog towns are often commonly associated with the site.

6. ESTHETIC AND RELATED VALUES: Blue, yellow, purple and maroon flowers of forbs dot the landscape during spring and early fall when there is adequate moisture. White flowers of yucca and maroon flowers of cholla also add considerable color to the site. Both of these plants are used for landscaping.

7. HYDROLOGIC CHARACTERISTICS: These soils are in hydrologic group B. Water infiltration and transmission rates are moderate. Surface runoff is slow to medium and sediment potentials are low to moderate. There is little ground water recharge.

8. GUIDE TO INITIAL STOCKING RATE:

Percent

a.

Condition Class	Climax Vegetation	Acres/AU/Year long
Excellent	76-100	16-20
Good	51-75	18-30
Fair	26-50	28-42
Poor	0-25	40+

b. Seeded Areas

	*100-76	75-51	20-26	25-0
sand bluestem	16-22**	22-26	27-38	39-48
sideoats grama	22-26	27-38	39-48	40-62
mixture (above)	16-22	22-26	27-38	39-48

*Percent ground cover
** Acres/AU/yearlong

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. For cattle:

Primary 2/	Secondary 3/	Low Value 4/
sand bluestem	silver bluestem	perennial threeawn
Indiangrass	sand dropseed	yucca
sideoats grama	hairy grama	sand sagebrush
blue grama	tumble windmillgrass	skunkbush sumac
buffalograss	vine ephedra	plains zenia
little bluestem	wild alfalfa	daleas
Canada wildrye	prairie clovers	gaura sp.
Texas bluegrass	primrose sp.	penstemons
neddle-and-thread	lyreleaf greeneyes	black sampson
Western wheatgrass	Louisiana sagewort	catclaw acacia
catclaw sensitivebriar		Indian rushpea
yucca blooms		
engelmanndaisy		

b. For antelope:

catclaw sensitivebriar		penstemons	yucca
paper flower	daleas	catclaw acacia	
yucca blooms	black sampson		skunkbush sumac
groundsels	sand dropseed		plains zenia
wild alfalfa	buffalograss		gaura
prairie clovers	blue grama		sideoats grama
primrose sp.	Canada wildrye		bluestems
Engelmanndaisy	Texas bluegrass		Indiangrass
Indian rushpea	needle-and-thread		hairy grama
annuals	Western wheatgrass		perennial threeawn
Louisiana sagewort	sand sagebrush		tumble windmillgrass
lyreleaf sagewort	vine ephedra		

c. For dove and quail 5/

Western ragweed	prairie clovers		fuzzy seeded
wild alfalfa	penstemons		grasses and forbs
catclaw sensitivebriar	black sampson		sideoats grama
annual broomweed	sand dropseed		buffalograss
buffalo-bur	skunkbush sumac		Texas bluegrass
sunflowers	catclaw acacia		needle-and-thread
crotons	daleas	Western wheatgrass	
	Canada wildrye		perennial threeawn
	Engelmanndaisy		tumble windmillgrass
			sand sagebrush
			yucca
			vine ephedra
			Louisiana sagewort
			lyreleaf greeneyes

1/ This rating system provided general guidance as to animal preference for plant species. It also indicates competition between kinds of animals for the various plants. Grazing preference changes from time to time and place to place depending upon the animal, plant palatability and nutritive value, stage of growth and season of use, relative abundance, and associated plants. Grazing preference does not necessarily reflect the place of a plantin in the range ecosystem.

2/ These species generally decrease under prolonged heavy grazing.

3/ These plants usually increase initially, then decrease under prolonged heavy use.

4/ These plants continue to increase with heavy grazing use.

5/ For these wildlife species the terms primary, secondary and low value indicate animal preference only. They do not indicate plant response to feeding pressure; nor do they have any ecological significance.